• COLORADO RIVER •

# AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

VOLUME XXIII JULY, 1956 NUMBER 7

## District Facilities Expanding At Rapid Pace

Since early in 1952 the Metropolitan Water District has been engaged in a major and ever-growing program of expanding its facilities for pumping and distributing Colorado River water.

Expansion work at the District's five pumping stations is moving ahead as rapidly as possible to keep pace with the ever-increasing demand for Colorado River water.

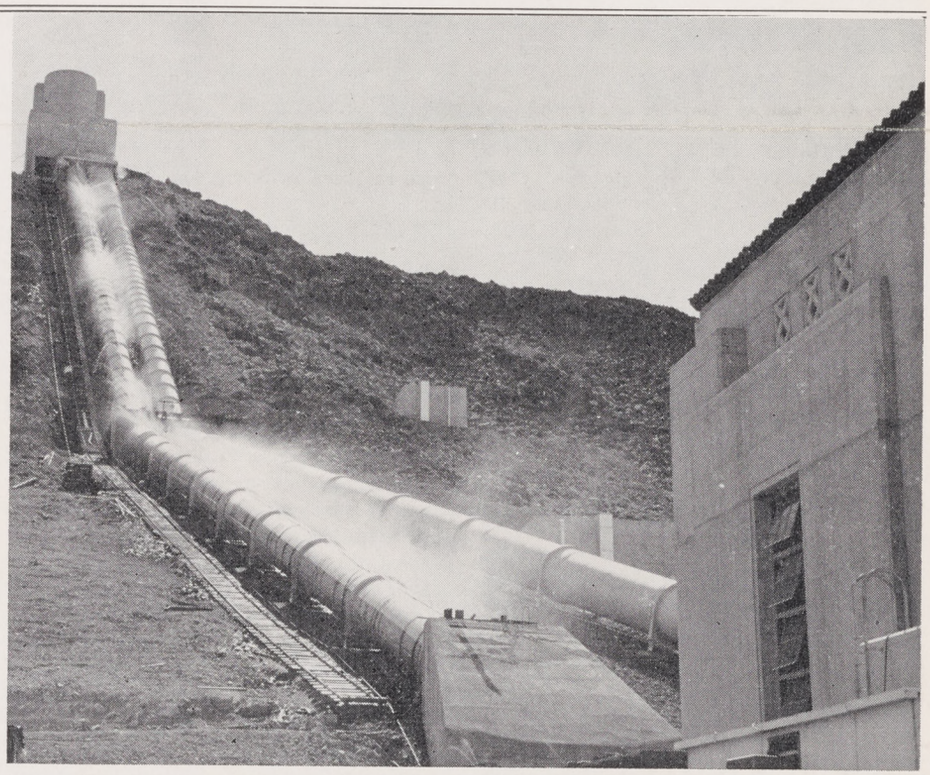
All work on the second 10-foot diameter steel delivery lines has been completed, including the headgates and operational tests on the headgates. Installation of the fourth pumping unit at each pumping plant is nearly completed and the new units are expected to all be in operation early in September, thereby increasing the flow of Colorado River water from 600 to 800 cubic feet per second.

Work on the fifth pump at each plant is also progressing and they are scheduled to be operating early in October, increasing the flow to 1,000 cubic feet per second. Each of the pumping units is capable of lifting 90,000 gallons of water per minute.

Preliminary work for unit number six is already under way and installation of these pumps will probably be completed late next year. Ultimately there will be nine pumps at each of the pumping plants with one of them serving as a standby.

On the distribution system a large amount of work has already been completed on various segments of the system, other work is now in progress and still more will be planned and completed in the near future.

Work on the Middle Feeder from Garvey Reservoir to Victoria Street has been completed. This consists of nearly 16 miles of 72-inch precast concrete pipe and 73-inch welded steel pipe. Also completed is the four mile Victoria Street to 223rd Street Cross Feeder. These lines are largely in the Central Basin Municipal Water District.



Shown above are the two pump delivery lines at Eagle Mountain Pumping Plant. Water is being sprayed on the new delivery line on the left to assist in curing the mortar lining by keeping it from drying too fast. Pumping unit number four is scheduled to be placed in operation early in September and number five is scheduled for October.

The Garvey-Ascot Cross Feeder from Palos Verdes Feeder to Garvey Reservoir, consisting of 5.8 miles of 60-inch precast concrete and welded steel pipe, was completed late in 1953. This is the line presently used to carry water into Garvey Reservoir which was completed in October, 1954 and has storage capacity of 1,500 acre feet.

Work on the Lower Feeder from the Cajalco Tunnel to the Santa Ana Canyon, consisting of approximately 20 miles of pipe line, varying in size from 61 to 109-inch, is 98 percent complete.

The Santiago Lateral from Santa Ana Canyon to Santiago Reservoir, consisting of 6.5 miles of 48 and 60-inch precast concrete pipe is 90 per cent completed.

The Inglewood Lateral and part of the Middle Cross Feeder, 4 miles of 79 and 37-inch welded steel pipe was completed in June, 1955. The Middle Cross Feeder from Garfield Avenue to Wadsworth Avenue, 5.4 miles of 79-inch welded steel pipe, is 92 percent completed.

The West Orange County Feeder, consisting of 8.7 miles of 43-inch welded steel pipe, was completed in March, 1955. An extension to this line of 4.3 miles of 55-inch welded steel pipe is now being laid and the work is 40 percent completed.

Other work completed includes the

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**Published monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.**

Vol. XXIII July, 1956 No. 7

## Water Deliveries Up Over Last Year

Total deliveries of Colorado River water through the District's Colorado River Aqueduct during the fiscal year 1955-56 were 405,960.7 acre-feet as compared with 385.945.9 acre-feet last year, an increase of 5.2 percent, it was announced this month by Robert B. Diemer, General Manager and Chief Engineer.

Mr. Diemer pointed out that the District had additional orders for approximately 90,000 acre-feet of unsoftened water (for spreading) but was not able to deliver this water because of the present aqueduct pumping capacity. Expansion work is now being carried forward at all five pumping stations and the Aqueduct will have an ultimate capacity of more than one billion gallons of water a day.

## Facilities Expanding

(Continued from Page One)

Cajalco Tunnel, 10 feet in diameter and 1.4 miles long; and the San Juan Tunnel, 10 feet in diameter and 1.3 miles long.

Other work now in progress includes a Lower Feeder line from the Middle Feeder to the West Orange County Feeder Extension, and the Middle Feeder line from La Verne to Garvey Reservoir.

The District also is paying for approximately half of the cost of the second barrel of the San Diego Aqueduct which was completed in 1954 under the direction of the U. S. Bureau of Reclamation. The District is operating and maintaining the 36 miles of facilities north of the San Luis Rey River.

As a result of the overwhelming approval of Proposition "W" at the June 5 Primary Election the District, during the next five years or six years, will carry forward an even greater program of expansion. This will include a pipe line to Culver City, closing the section of lower feeder across the northerly part of Orange County, addition of the second barrel of main aqueduct siphons, expansion of the Softening and Filtration plant, installation of the three final pumping units at each of the pumping plants, placing of additional transmission lines, the enlargement of Lake Mathews and an additional pipe line to Palos Verdes Reservoir.

The District's Annual Report for the year ending June 30, 1955, pointed out that the ultimate development of the Aqueduct will include construction of a second Lower Feeder to the Harbor area, a Lower Feeder softening plant, supplementary storage facilities, Morris Reservoir pumping plant and miscellaneous additional pipe lines.

The completion of this work will bring the Aqueduct to its full planned delivery capacity of more than one billion gallons of water a day and thus assure Southern California an adequate supply of water for years to come.

## San Diego Authority Dedicates New Building

New headquarters, from which operations of the San Diego County Water Authority henceforth will be directed, were dedicated at an informal ceremony Thursday, July 12.

Representing the Metropolitan Water District was Warren W. Butler, Vice Chairman of the District Board.

Need for enlarged quarters to meet the steadily increasing requirements of the Authority resulted in a decision a year ago to erect a permanent home. It is located at 2750 Fourth Avenue in San Diego, and with its adjacent parking area represents an outlay of $100,000. Former offices, which the agency had rented since its formation in 1944, were in the downtown Land Title Building.

Open house during the afternoon attracted many visitors, as did an evening session when directors met for the first time in the new structure.

The dedication was made the occasion for tributes to Fred A. Heilbron in recognition of his 12 years service as Board Chairman of the Authority and his record of community leadership for more than half a century. Mr. Heilbron is also one of San Diego's two representatives on the Board of Directors of the Metropolitan Water District and is Secretary of the Board. Directors and staff presented Mr. Heilbron with an engraved silver water pitcher.

# For the RECORD

**(The following items are noted from the report of General Manager and Chief Engineer Robert B. Diemer, filed July, 1956, covering District Operations for June, 1956.)**

*Colorado River*—The water level in Lake Mead during June rose 18.48 feet to elevation 1116.48 feet and usable storage increased to 13,850,000 acre-feet or to 50 percent of the usable capacity of the reservoir.

*Power and Pumping*—Hayfield plant pumped 34,950 acre-feet during June on a continuous three-pump basis. The District's share of Parker energy was 26,800,067 kwhrs, all of which was used by the District in its own system. Edison interchange energy delivered to the District was 8,409,600 kwhrs. Peak delivery to and from Edison was 121,000 and 85,000 kw, respectively.

*Weymouth Softening and Filtration Plant*—Colorado River water was softened from a natural hardness of 374 to a finished hardness of 157 ppm at an average rate of 325 cfs. The daily rate of flow varied from a minimum of 225 to a maximum of 423 cfs. The total volume of water treated was 19,029 acre-feet.

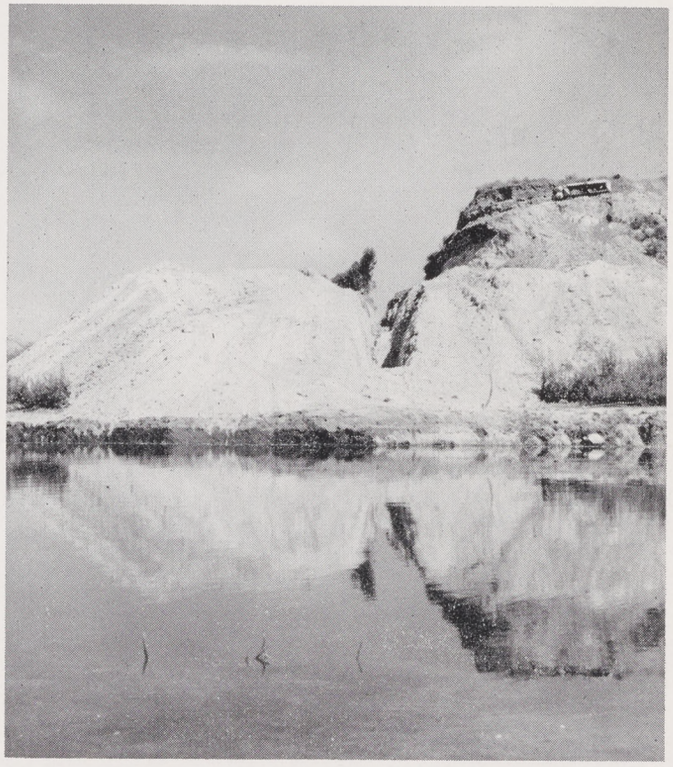
*Construction*—One new contract in the amount of $4,192,248 for pipe line construction and one new contract in the amount of $16,835 for equipment for pumping unit 6 were awarded in June. On the distribution system Lower Feeder and Santiago Lateral, Schedules 75P and 90SC, the contract work is approximately 99 percent complete; Santiago Lateral, Schedule 91P, the work is 90 percent complete; West Orange County Feeder Extension, Schedule 61-SC, work is 40 percent complete; Lower Feeder, Schedule 79SC, work is 10 percent complete; Schedule 80SC, contract is 25 percent complete; Middle Cross-Feeder, Schedule 53SC, work is 92 percent complete.

*Pumping plant expansion*—On installation of Pump Units 4 and 5: All work at Intake, Gene and Iron Mountain plants has been completed with the exception of painting; work at Eagle Mountain is 85 percent complete and at Hayfield 85 percent complete. On the extension of pumping plant buildings, demolition of the end wall of the pump building was completed at Intake plant and about 60 percent completed at Gene plant.

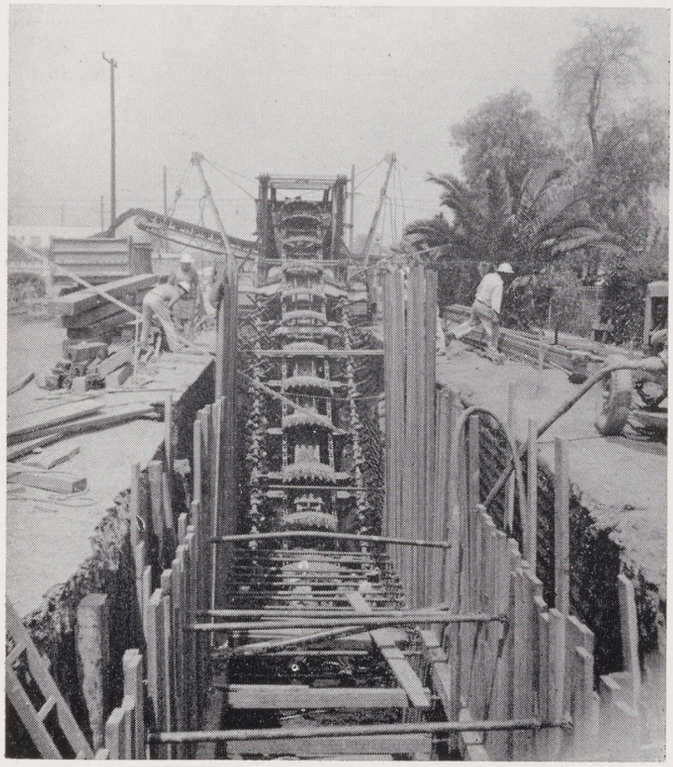
*Purchasing*—Total expenditures covered by 356 purchase orders and 12 agreements during June aggregate $107,804.

# MORE COLORADO RIVER WATER ON THE WAY

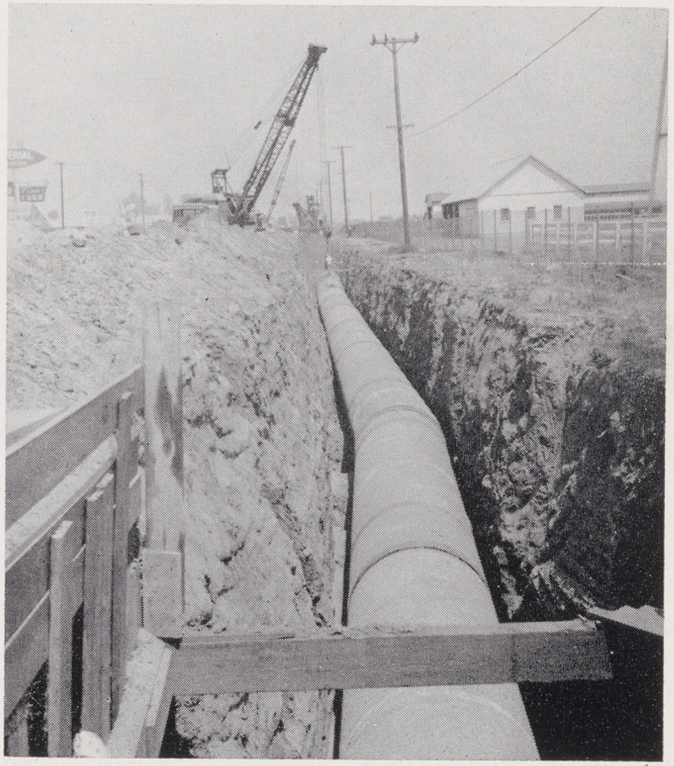
Workmen above are laying 55-inch welded steel pipe on the West Orange County Feeder Extension near Alondro Boulevard and Dale Street north of Buena Park in Orange County.



Shown above is the trench for the extension of the Santiago Lateral into the Santiago Reservoir. By agreement with the Orange County Municipal Water District, the MWD is performing inspection on the extension.



Here a trenching machine is excavating a trench nine feet wide for installation of pipe on the Middle Cross Feeder. This work is along Ninety-first Street near Hooper Avenue.



Work is also progressing along the Lower Feeder. Above a pipe laying rig is placing pipe along Imperial Highway east of Bloomfield Avenue.

# NEWS FROM FIELD AND OFFICE

A baby shower in honor of Mrs. Gene Godwin was held at the home of Mr. and Mrs. Ray Milts in Arlington on July 23 by the wives of District employees who are working at Lake Mathews. Gene is a Junior Engineering Aide.

Approximately 25 ladies attended the shower. Refreshments were served and Wanda Godwin received a number of gifts. Mrs. Milts and Mrs. Carl Love were co-hostesses for the event.

* * *

Don Fleming, Utility Man on Construction, and his wife, Nancy, have a brand new baby at their house. She arrived at the Pomona Valley Hospital on July 20 weighing 5 pounds, 14 ounces and has been named Melenda Sue.

* * *

George B. Fenley, Associate Engineer in the Los Angeles office, passed away on May 30 following a protracted illness. He would have been 46 years of age this August.

George started to work for the District as a Draftsman in 1948 and was made an Assistant Engineer in 1949. In 1955 he became an Associate Engineer. He was a graduate of New Mexico State College with a degree in Civil Engineering.

George was well liked by everyone and all who knew him, even slightly, are saddened by his death. He is survived by his wife, Violette, and a daughter, Robyn.

* * *

The M. W. D. Federal Credit Union is proving very popular with District employees, according to officers of the Union. There are now 131 members who are saving an average of $10 a month per member.

All District employees are eligible to join the Union, which not only offers a painless method of saving but also provides low interest rate loans and two forms of insurance at no additional cost. Upon the death of a member, the beneficiary will be paid double the amount the member had in the Credit Union up to $1000. Application forms for those wishing to join may be obtained from officers of the Employees Association.

* * *

Patricia JoAnn Thomason, daughter of Sam Thomason, Lineman, was married to Robert Earl Jones in the American Lutheran Church in Banning on June 30. Following their honeymoon the happy couple will reside in Los Angeles. Both bride and groom intend to continue their education. Pat is planning to attend Woodbury College and Bob is making arrangements to enter his third year of college following a tour of military service.

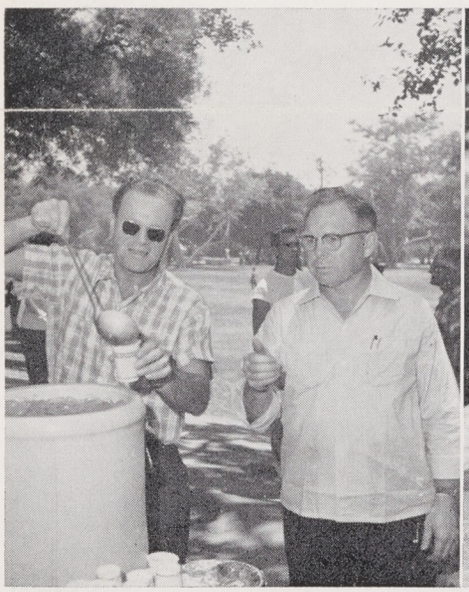
John Dickey, Deputy General Counsel, and his wife, Virginia, are the proud parents of a baby daughter born July 9 at the Kaiser Foundation Hospital. The young lady weighed 5 pounds, 6½ ounces and is named Dorothy Frances. Like most babies, she arrived at 2:30 in the morning and John reports that she still seems fond of that hour as she always wakes up then.

* * *

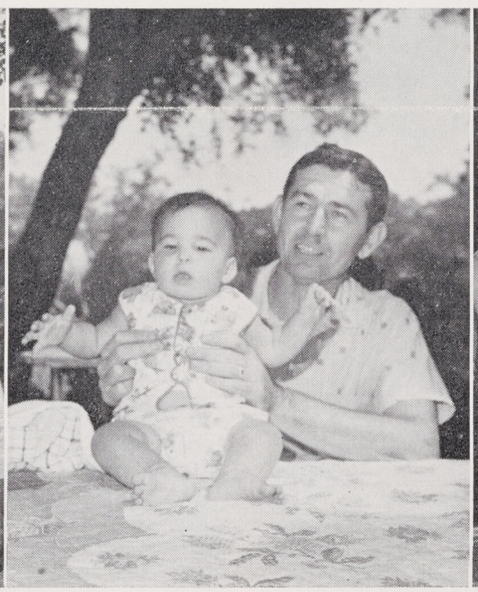
Robert D. (Bob) Speers, 48, first editor of the Aqueduct News passed away on July 20. Bob was in the District's Public Relations office from 1931 to 1936. He took an active part in the 1931 $220,000,000 bond campaign. For a number of years he was President of a public relations firm with large business and industrial accounts, with its home office in Los Angeles. After leaving the District, Bob for a number of years was engaged in public relations work with several of the leading motion picture studios.

* * *

Approximately 125 District employees and guests attended the annual District picnic in San Dimas Park on July 8. The gala event is sponsored by Group III of the Employees Association, which provided coffee, lemonade and dessert. Everyone brought food, and games were arranged for the small fry. The weatherman provided a perfect day and the picnic was a rousing success.



Lee Streicher, Chief Chemist, left, and Dave Smith, Chemist, quench their thirst with lemonade at the District picnic on July 9.



Al Hovanec, Assistant Engineer, proudly displays his young son, Mark Albert, who thought the picnic was great fun.

Harry Crawshaw, Office Engineer, and Lars Christiansen, Superintendent of Aqueduct Maintenance, look too serious for a picnic but they had a good time.